

**FACT SHEET STATEMENT OF BASIS
CITY OF FERRON WASTEWATER TREATMENT FACILITY
UPDES PERMIT No. UT0020052
MINOR MUNICIPAL FACILITY PERMIT RENEWAL**

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DESCRIPTION OF FACILITY AND DISCHARGES

The City of Ferron and the Castle Valley Special Service District (CVSSD) constructed a new lagoon system in 2005 to handle domestic sewage for the City of Ferron. The new lagoon system is located approximately 2.25 miles east of the City of Ferron off Highway 10. The Ferron lagoon system consists of four cells totaling 33 acres in area with a chlorination pond for disinfection and also provides for the addition of a future cell if needed. To date there has been no discharge from this facility and none are anticipated for many years due to the size of the lagoons, therefore a separate discharge data table was not generated for inclusion herein. The Ferron facility has a design flow of 1.0 million gallons per day (MGD) with a single discharge point of Outfall 001, which is located at latitude of 39° 04' 43.75" and a longitude of 111° 03' 42.61".

RECEIVING WATER CLASSIFICATION

The discharge will go to Ferron Creek, which is classified as 2B, 3C and 4 under *Utah Administrative Code (UAC) R317-2-13* as described below:

- 2B - Protected for secondary contact recreation such as boating, wading, or similar uses.
- 3C - Protected for non-game fish and other aquatic wildlife, including the necessary aquatic organisms in their food chain.
- 4 - Protected for agricultural uses including irrigation of crops and stock watering.

BASIS FOR EFFLUENT LIMITATIONS

Limitations on total suspended solids (TSS), 5-day biochemical oxygen demand (BOD₅), E. coli, pH and percent removal for TSS and BOD₅ are based on current Utah Secondary Treatment Standards, *UAC R317-1-3.2*. The alternative effluent limits for TSS and BOD₅ were previously requested by CVSSD and subsequently granted by the Utah Water Quality Board in 2001 and remains unchanged. Ammonia as Nitrogen (NH₃-N), total

residual chlorine (TRC), and dissolved oxygen (DO) limits are water quality based, and were derived by the previous waste load analysis performed in 2003, which were based upon actual discharge data from the old lagoon facility, and in the absence of effluent data from the new lagoon facility remain unchanged in this permit renewal.

Any future discharges from the Ferron facility would eventually reach the Colorado River, which places it in the guidance of the Colorado River Basin Salinity Control Forum (CRBSCF). Total dissolved solids (TDS) are limited in loading by the CRBSCF and in February 1977 they produced the *“Policy For Implementation of Colorado River Salinity Standards Through the NPDES Permit Program”* (Policy). This Policy is still in effect and under Part II (Municipal Discharges) it states, *“...Requirements for establishing incremental increases may be waived in those cases where the incremental salt load reaching the main stem of the Colorado River is less than one ton per day or 366 tons per year.”* The Ferron facility is an intermittent discharger, discharging less than 366 tons per year total. Therefore, the effluent will once again be limited to a maximum discharge of 1.0 ton per day or 366 tons per year.

The TDS concentration limit of 3500 mg/L is based upon the approved Total Maximum Daily Load (TMDL) study for the Muddy Creek watershed (which includes Ferron Creek), in which a site specific criterion was developed for TDS and can be found in Table A-12 of the document entitled, *“Price River, San Rafael River, and Muddy Creek TMDLs for Total Dissolved Solids, West Colorado Watershed Management Unit, Utah”*, EPA Approval Date: August 4, 2004.

Based on previous monitoring data and the existing treatment facility operations, the permittee is expected to be able to continue to comply with the following effluent limitations upon any future discharges:

Parameter	Effluent Limitations			
	Maximum Monthly Average	Maximum Weekly Average	Daily Minimum	Daily Maximum
BOD ₅ , mg/L	45	65	NA	NA
BOD ₅ Min. % Removal	65	NA	NA	NA
TSS, mg/L	45	65	NA	NA
TSS Min. % Removal	65	NA	NA	NA
E. Coli, No./100mL	126	158	NA	NA
TRC, mg/L	NA	NA	NA	0.032
NH ₃ -N, mg/L	NA	NA	NA	15.3
TDS, mg/L	NA	NA	NA	3500
TDS, tons/day	NA	NA	NA	1.0
pH, Standard Units(SU)	NA	NA	6.5	9.0
Dissolved Oxygen, mg/L	NA	NA	4.0	NA

NA – Not Applicable

mg/L – milligrams per liter

WASTE LOAD ANALYSIS AND ANTIDEGRADATION REVIEW

Effluent limitations are also derived using a waste load analysis (WLA), which is appended to this statement of basis as ADDENDUM. The WLA incorporates Secondary Treatment Standards, Water Quality Standards, Antidegradation Reviews (ADR), as appropriate and designated uses into a water quality model that projects the effects of discharge concentrations on receiving water quality. Effluent limitations are those that the model demonstrates are sufficient to meet State water quality standards in the receiving waters. During this UPDES renewal permit development, a WLA and ADR were performed. The WLA resulted in a Finding of No Significant Impact – Negative Declaration. An ADR Level I review was performed and concluded that an ADR Level II review was not required. The WLA indicates that the existing effluent limitations should be sufficiently protective of water quality, in order to meet State water quality standards in the receiving waters. The potential discharge was evaluated and determined not to cause a violation of State Water Quality Standards in downstream receiving waters.

SELF MONITORING AND REPORTING REQUIREMENTS

Discharge monitoring report (DMR) forms shall be submitted monthly and are due 28 days after the end of the monitoring period and shall include the following self-monitoring and reporting information:

Self-Monitoring and Reporting Requirements			
Parameter	Frequency	Sample Type	Units
Total Flow	Continuous	Recorder	MGD
BOD ₅ , Influent Effluent	Monthly	Grab	mg/L
	Monthly	Grab	mg/L
TSS, Influent Effluent	Monthly	Grab	mg/L
	Monthly	Grab	mg/L
E. Coli	Monthly	Grab	No./100mL
NH ₃ -N	Monthly	Grab	mg/L
TRC	Daily (only if chlorinating)	Grab	mg/L
Dissolved Oxygen	Monthly	Grab	mg/L
TDS	Monthly	Grab	mg/L, tons/day/year
pH	Monthly	Grab	SU

SIGNIFICANT CHANGES

The only change in this permit renewal when compared to the existing permit is the inclusion of a TDS concentration limit as previously described to reflect the TMDL study as appropriate. All other permit provisions remain unchanged.

STORM WATER REQUIREMENTS

Because the population served is under 10,000, a storm water UPDES permit is not required. Therefore, storm water permit provisions have not been included once again with the permit renewal. However, at any time during the lifetime of this permit it may be re-opened and modified, following proper administrative procedures as per *UAC R317-8*, to include any applicable storm water provisions and requirements.

PRETREATMENT REQUIREMENTS

Although the permittee does not have a State-approved pretreatment program, any wastewater discharges to the sanitary sewer by industrial users are subject to Federal, State and local pretreatment regulations. Pursuant to *Section 307 of the Clean Water Act*, the permittee shall comply with all applicable Federal General Pretreatment Regulations promulgated, found in *40 CFR 403* and the State Pretreatment Requirements found in *UAC R317-8-8*.

The permittee has not been designated for pretreatment program development because it does not meet conditions which necessitate a full program. The flow through the plant is less than five (5) MGD, there are no categorical industries discharging to the plant, industrial discharges comprise less than 10 percent of the flow through the plant, and there is no indication of pass through or interference with the operation of the plant such as upsets or violations of the POTW's UPDES permit limits.

However, the permittee is required to conduct an Industrial Wastewater Survey, as described in Part I.D.2 of the draft permit, in order to assess the need for the future development of a pretreatment program.

BIOMONITORING REQUIREMENTS

As part of a nationwide effort to control toxic discharges, biomonitoring requirements are being included in permits for facilities where effluent toxicity is an existing or potential concern. In Utah, this is done in accordance with the *State of Utah Permitting and Enforcement Guidance Document for Whole Effluent Toxicity Control (Biomonitoring)*. Authority to require effluent biomonitoring is provided in *Permit Conditions, UAC R317-8-4.2, Permit Provisions, UAC R317-8-5.3* and *Water Quality Standards, UAC R317-2-5 and R317-2-7.2*.

The permittee is a minor municipal facility with no industrial users on the system and no discharges to date. Any future discharges will likely be from domestic sources and only contributing a small volume of effluent to the existing stream flow, in which toxicity is not likely to be present. Based on these considerations, there is no reasonable potential for toxicity in the permittee's discharge (*per State of Utah Permitting and Enforcement*

Guidance Document for WET Control). As such, there will be no numerical WET limitations or WET monitoring requirements in this permit. However, the permit will contain a toxicity limitation re-opener provision that allows for modification of the permit should additional information indicate the presence of toxicity in future discharges.

BIOSOLIDS MANAGEMENT REQUIREMENTS

Because the permitted facility is a lagoon system, there is no regular sludge production. Therefore, the requirements of *40 CFR 503* do not apply unless or until sludge is removed from the bottom of the lagoon and used or disposed in some way. When planning sludge removal, the permittee should contact DWQ or EPA for guidance.

PERMIT DURATION

Staff recommends renewal of this permit as drafted and that the renewal permit be effective for a period of five years.

Drafted by Jeff Studenka
Environmental Scientist
Utah Division of Water Quality
Drafted January 29, 2009

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